



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Here the Application of)
)
Hugh Gramajo et al.)
)
Serial No. 10/045,612)
)
Filed: October 23, 2001)
)
For: ANTIBIOTIC PRODUCTION II)

SUBMISSION OF SEQUENCE LISTING
UNDER 37 C.F.R. §§1.821-1.825 AND PRELIMINARY AMENDMENT

The present submission is in response to the Office communication dated March 14, 2002 enclosing a Notice To File Missing Parts Of Nonprovisional Application.

To comply with the requirements under 37 C.F.R. §§1.821-1.825, submitted herewith is a sequence listing of the amino acids and nucleotides presented in the above-referenced application. The sequence listing is being submitted in both paper copy and computer-readable form. Applicants respectfully request entry of the sequence listing into the above identified patent application. The undersigned hereby verifies that the paper copy and computer readable form of the sequence listing are identical and do not contain any new matter. In the event that a fee is required, the Commissioner is authorized to charge the account of the undersigned, Account No. 04-1406. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation

By

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SEQUENCE LISTING

COPY OF PAPERS
ORIGINALLY FILED

<100> Gramajo, Hugo C
Rodriguez, Eduardo J

<120> Antibiotic Production II

<130> 0380-P02327US1

<140> US 10/045,612

<141> 2001-10-23

<150> US 60/242,533

<151> 2000-10-23

<160> 32

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 accggccgat acgttctgag catgactgtt ccgaacaggg cggcgtgaat tccaaccgtt 180
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 35 40 45
 Ala Leu Gly Gly Asp Thr Pro Ala Thr Ser Tyr Leu Asp Ile Ala Lys
 50 55 60
 Val Leu Lys Ala Ala Arg Glu Ser Gly Ala Asp Ala Ile His Pro Gly
 65 70 75 80
 Tyr Gly Phe Leu Ser Glu Asn Ala Glu Phe Ala Gln Ala Val Leu Asp
 85 90 95
 Ala Gly Leu Ile Trp Ile Gly Pro Pro Pro His Ala Ile Arg Asp Arg
 100 105 110
 Gly Glu Lys Val Ala Ala Arg His Ile Ala Gln Arg Ala Gly Ala Pro
 115 120 125
 Leu Val Ala Gly Thr Pro Asp Pro Val Ser Gly Ala Asp Glu Val Val
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 Ala Phe Ala Lys Glu His Gly Leu Pro Ile Ala Ile Lys Ala Ala Phe
 145 150 155 160
 Gly Gly Gly Gly Arg Gly Leu Lys Val Ala Arg Thr Leu Glu Glu Val
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 Pro Glu Leu Tyr Asp Ser Ala Val Arg Glu Ala Val Ala Ala Phe Gly
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 Arg Gly Glu Cys Phe Val Glu Arg Tyr Leu Asp Lys Pro Arg His Val
 195 200 205
 Glu Thr Gln Cys Leu Ala Asp Thr His Gly Asn Val Val Val Val Ser
 210 215 220
 Thr Arg Asp Cys Ser Leu Gln Arg Arg His Gln Lys Leu Val Glu Glu
 225 230 235 240
 Ala Pro Ala Pro Phe Leu Ser Glu Ala Gln Thr Glu Gln Leu Tyr Ser
 245 250 255
 Ser Ser Lys Ala Ile Leu Lys Glu Ala Gly Tyr Gly Gly Ala Gly Thr
 260 265 270
 Val Glu Phe Leu Val Gly Met Asp Gly Thr Ile Phe Phe Leu Glu Val
 275 280 285
 Asn Thr Arg Leu Gln Val Glu His Pro Val Thr Glu Glu Val Ala Gly
 290 295 300
 Ile Asp Leu Val Arg Glu Met Phe Arg Ile Ala Asp Gly Glu Glu Leu
 305 310 315 320
 Gly Tyr Asp Asp Pro Ala Leu Arg Gly His Ser Phe Glu Phe Arg Ile
 325 330 335

Asn Gly Glu Asp Pro Gly Arg Gly Phe Leu Pro Ala Pro Gly Thr Val
340 345 350

Thr Leu Phe Asp Ala Pro Thr Gly Pro Gly Val Arg Leu Asp Ala Gly
355 360 365

Val Glu Ser Gly Ser Val Ile Gly Pro Ala Trp Asp Ser Leu Leu Ala
370 375 380

Lys Leu Ile Val Thr Gly Arg Thr Arg Ala Glu Ala Leu Gln Arg Ala
385 390 395 400

Ala Arg Ala Leu Asp Glu Phe Thr Val Glu Gly Met Ala Thr Ala Ile
405 410 415

Pro Phe His Arg Thr Val Val Arg Asp Pro Ala Phe Ala Pro Glu Leu
420 425 430

Thr Gly Ser Thr Asp Pro Phe Thr Val His Thr Arg Trp Ile Glu Thr
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Glu Phe Val Asn Glu Ile Lys Pro Phe Thr Thr Pro Ala Asp Thr Glu
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Thr Asp Glu Glu Ser Gly Arg Glu Thr Val Val Val Glu Val Gly Gly
465 470 475 480

Lys Arg Leu Glu Val Ser Leu Pro Ser Ser Leu Gly Met Ser Leu Ala
485 490 495

Arg Thr Gly Leu Ala Ala Gly Ala Arg Pro Lys Arg Arg Ala Ala Lys
500 505 510

Lys Ser Gly Pro Ala Ala Ser Gly Asp Thr Leu Ala Ser Pro Met Gln
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Gly Thr Ile Val Lys Ile Ala Val Glu Glu Gly Gln Glu Val Gln Glu
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Gly Asp Leu Ile Val Val Leu Glu Ala Met Lys Met Glu Gln Pro Leu
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35 40 45

Ala Leu Gly Gly Asp Thr Pro Ala Thr Ser Tyr Leu Asp Ile Ala Lys
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 Val Leu Lys Ala Ala Arg Glu Ser Gly Ala Asp Ala Ile His Pro Gly
 65 70 75 80
 Tyr Gly Phe Leu Ser Glu Asn Ala Asp Phe Ala Gln Ala Val Leu Asp
 85 90 95
 Ala Gly Leu Ile Trp Ile Gly Pro Pro Pro His Ala Ile Arg Asp Arg
 100 105 110
 Gly Glu Lys Val Ala Ala Arg His Ile Ala Gln Arg Ala Gly Ala Pro
 115 120 125
 Leu Val Ala Gly Thr Pro Asp Pro Val Ser Gly Ala Asp Glu Val Val
 130 135 140
 Ala Phe Ala Lys Glu His Gly Leu Pro Ile Ala Ile Lys Ala Ala Phe
 145 150 155 160
 Gly Gly Gly Gly Arg Gly Leu Lys Val Ala Arg Thr Leu Glu Glu Val
 165 170 175
 Pro Glu Leu Tyr Asp Ser Ala Val Arg Glu Ala Val Ala Ala Phe Gly
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 Arg Gly Glu Cys Phe Val Glu Arg Tyr Leu Asp Lys Pro Arg His Val
 195 200 205
 Glu Thr Gln Cys Leu Ala Asp Thr His Gly Asn Val Val Val Val Ser
 210 215 220
 Thr Arg Asp Cys Ser Leu Gln Arg Arg His Gln Lys Leu Val Glu Glu
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 Ala Pro Ala Pro Phe Leu Ser Glu Ala Gln Thr Glu Gln Leu Tyr Ser
 245 250 255
 Ser Ser Lys Ala Ile Leu Lys Glu Ala Gly Tyr Val Gly Ala Gly Thr
 260 265 270
 Val Glu Phe Leu Val Gly Met Asp Gly Thr Ile Ser Phe Leu Glu Val
 275 280 285
 Asn Thr Arg Leu Gln Val Glu His Pro Val Thr Glu Glu Val Ala Gly
 290 295 300
 Ile Asp Leu Val Arg Glu Met Phe Arg Ile Ala Asp Gly Glu Glu Leu
 305 310 315 320
 Gly Tyr Asp Asp Pro Ala Leu Arg Gly His Ser Phe Glu Phe Arg Ile
 325 330 335
 Asn Gly Asp His Pro Gly Arg Gly Phe Leu Pro Ala Pro Gly Thr Val
 340 345 350
 Thr Leu Phe Asp Ala Pro Thr Gly Pro Gly Val Arg Leu Asp Ala Gly
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 Val Glu Ser Gly Ser Val Ile Gly Pro Ala Trp Asp Ser Leu Leu Ala
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 Lys Leu Ile Val Thr Gly Arg Thr Arg Ala Glu Ala Leu Gln Arg Ala
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Ala Arg Ala Leu Asp Glu Phe Thr Val Glu Gly Met Ala Thr Ala Ile
405 410 415

Pro Phe His Arg Thr Val Val Arg Asp Pro Ala Phe Ala Pro Glu Leu
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Thr Gly Ser Thr Asp Pro Phe Thr Val His Thr Arg Trp Ile Glu Thr
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Glu Phe Val Asn Glu Ile Lys Pro Phe Thr Thr Pro Ala Asp Thr Glu
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465 470 475 480

Lys Arg Leu Glu Val Ser Leu Pro Ser Ser Leu Gly Met Ser Leu Ala
485 490 495

Arg Thr Gly Leu Ala Ala Gly Ala Arg Pro Lys Arg Arg Ala Ala Lys
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Lys Ser Gly Pro Ala Ala Ser Gly Asp Thr Leu Ala Ser Pro Met Gln
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Gly Thr Ile Val Lys Ile Ala Val Glu Glu Gly Gln Glu Val Gln Glu
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Gly Asp Leu Ile Val Val Leu Glu Ala Met Lys Met Glu Gln Pro Leu
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gccctggccg	gtgtcctgga	catcgaggcg	tcggagaagg	cggcccgtt	cgtccagatg	1080
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aacgcgaccg	tgccccggat	ctcgtctgat	ctgcgcaagg	cgtacggagg	tgcttacatc	1260
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35 40 45	
Arg Glu Arg Ile Glu Leu Leu Leu Asp Pro Gly Ser Phe Arg Glu Val	
50 55 60	
Glu Gln Leu Arg Arg His Arg Ala Thr Gly Phe Gly Leu Glu Ala Lys	
65 70 75 80	
Lys Pro Tyr Thr Asp Gly Val Ile Thr Gly Trp Gly Thr Val Glu Gly	
85 90 95	
Arg Thr Val Phe Val Tyr Ala His Asp Phe Arg Ile Phe Gly Gly Ala	
100 105 110	
Leu Gly Glu Ala His Ala Thr Lys Ile His Lys Ile Met Asp Met Ala	
115 120 125	
Ile Ala Ala Gly Ala Pro Leu Val Ser Leu Asn Asp Gly Ala Gly Ala	
130 135 140	
Arg Ile Gln Glu Gly Val Ser Ala Leu Ala Gly Tyr Gly Gly Ile Phe	
145 150 155 160	

Gln Arg Asn Thr Lys Ala Ser Gly Val Ile Pro Gln Ile Ser Val Met
 165 170 175
 Leu Gly Pro Cys Ala Gly Gly Ala Ala Tyr Ser Pro Ala Leu Thr Asp
 180 185 190
 Phe Val Phe Met Val Arg Asp Thr Ser Gln Met Phe Ile Thr Gly Pro
 195 200 205
 Asp Val Val Lys Ala Val Thr Gly Glu Glu Ile Thr Gln Asn Gly Leu
 210 215 220
 Gly Gly Ala Asp Val His Ala Glu Thr Ser Gly Val Cys His Phe Ala
 225 230 235 240
 Tyr Asp Asp Glu Glu Thr Cys Leu Ala Glu Val Arg Tyr Leu Leu Ser
 245 250 255
 Leu Leu Pro Gln Asn Asn Arg Glu Asn Pro Pro Arg Ala Glu Ser Ser
 260 265 270
 Asp Pro Val Asp Arg Arg Ser Asp Thr Leu Leu Asp Leu Val Pro Ala
 275 280 285
 Asp Gly Asn Arg Pro Tyr Asp Met Thr Lys Val Ile Glu Glu Leu Val
 290 295 300
 Asp Glu Gly Glu Tyr Leu Glu Val His Glu Arg Trp Ala Arg Asn Ile
 305 310 315 320
 Ile Cys Ala Leu Ala Arg Leu Asp Gly Arg Val Val Gly Ile Val Ala
 325 330 335
 Asn Gln Pro Gln Ala Leu Ala Gly Val Leu Asp Ile Glu Ala Ser Glu
 340 345 350
 Lys Ala Ala Arg Phe Val Gln Met Cys Asp Ala Phe Asn Ile Pro Ile
 355 360 365
 Ile Thr Leu Leu Asp Val Pro Gly Phe Leu Pro Gly Val Asp Gln Glu
 370 375 380
 His Gly Gly Ile Ile Arg His Gly Ala Lys Leu Leu Tyr Ala Tyr Cys
 385 390 395 400
 Asn Ala Thr Val Pro Arg Ile Ser Leu Ile Leu Arg Lys Ala Tyr Gly
 405 410 415
 Gly Ala Tyr Ile Val Met Asp Ser Gln Ser Ile Gly Ala Asp Leu Thr
 420 425 430
 Tyr Ala Trp Pro Thr Asn Glu Ile Ala Val Met Gly Ala Glu Gly Ala
 435 440 445
 Ala Asn Val Ile Phe Arg Arg Gln Ile Ala Asp Ala Glu Asp Pro Glu
 450 455 460
 Ala Met Arg Ala Arg Met Val Lys Glu Tyr Lys Ser Glu Leu Met His
 465 470 475 480
 Pro Tyr Tyr Ala Ala Glu Arg Gly Leu Val Asp Asp Val Ile Asp Pro
 485 490 495
 Ala Glu Thr Arg Glu Val Leu Ile Thr Ser Leu Ala Met Leu His Thr
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10045612 053102

Lys His Ala Asp Leu Pro Ser Arg Lys His Gly Asn Pro Pro Gln
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Pro Ala Glu Ile Ala Pro Thr His Gly Gly Gly Arg Ala Arg Ala Gly
35 40 45

Trp Arg Arg Leu Glu Arg Glu Pro Gly Phe Arg Ala Pro His Ser Trp
50 55 60

Arg
65